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Ministry of  
Environment  
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June 28, 1994

Dear Sir/Madam:

March 2, 1994 I released a draft regulation for public review involving halons, as part of Ontario's commitment to protecting the ozone layer, as set forth in the Montreal Protocol. Halons are potent, ozone-depleting substances (ODS) used in fire-extinguishing equipment. I want to thank those of you who took the time to provide written comments. Based on those comments, we have improved the draft and today I am pleased to release the final regulation which will minimize the release of halons in Ontario and protect the stratospheric ozone layer.

Effective immediately, halon fire extinguishers and systems can still be used to fight fires, but all other halon releases are prohibited. Only approved companies may service halon equipment. In addition, new halon extinguishers and systems and existing, small, portable, halon fire extinguishers will be phased out.

I encourage you to read the enclosed material outlining the new regulation. If you have any questions, please call the ministry's Public Information Centre at 1-800-565-4923 or (416) 323-4321 in Toronto.

If you require information on the servicing, dismantling, removal, or disposal of halon equipment, or on the supply, storage, or reconditioning of halons, please contact Underwriters' Laboratories of Canada at 1-800-463-8244. This is a non-profit standards organization, under the Standards Council of Canada.

Ontario was the first jurisdiction in Canada to implement regulations on ODS. Past regulations have dealt with the use of CFCs in aerosols, foam manufacturing, and as refrigerants. These regulations, combined with the new one, will control about 95 per cent of ODS in Ontario.

I will soon be announcing initiatives to control ODS used as solvents and sterilants.

Together we can protect the stratospheric ozone layer.

Yours sincerely,

*Bud Wildman*

C.J. (Bud) Wildman  
Minister  
Enclosures



Ministry of      Ministère de  
Environment    l'Environnement  
and Energy     et de l'Énergie

June 28, 1994

**About 95 per cent of ozone-depleting fluorocarbons now regulated in Ontario**

A regulation to control the release of halons, one of the most damaging ozone-depleting substances (ODS), became law today, announced Environment and Energy Minister Bud Wildman. The regulation is based on a draft released last March for public comment.

Halons are up to 10 times more damaging to the ozone layer than an equal amount of chlorofluorocarbons (CFCs). Halons are used almost exclusively in fire-extinguishing equipment and in explosion suppression applications both industrial and residential. They are released into the environment during firefighting, training, testing and servicing of equipment and by accidental discharges.

"This is a major step forward in our effort to protect the ozone layer as set out in the Montreal Protocol," Mr. Wildman said. "This regulation, along with others we've implemented, means Ontario has a comprehensive program controlling about 95 per cent of the ozone-depleting fluorocarbons used in the province."

The regulation requires certification of companies servicing halon fire-extinguishing equipment. The sale of new fire extinguishers and systems containing halons will be prohibited. Venting halons into the atmosphere when fighting fires intentionally set for training purposes, or any other reason, is prohibited. However, the use of halons for real-life fire fighting is still permitted. The manufacture of halons has ceased, but continued use under strictly controlled conditions will be permitted.

The regulation does not require homeowners to dispose of their portable halon fire extinguishers. Homeowners should maintain them in accordance with manufacturers' instructions and contact the Underwriters' Laboratories of Canada (ULC) for information on service or disposal.

Ontario was the first jurisdiction in Canada to regulate ODS. Past regulations have dealt with the use of CFCs in aerosols, foam manufacturing and as refrigerants. Initiatives controlling the ODS used in solvents and sterilants will be announced in the near future.

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For more information:

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\* Il existe une version française de ce document.

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## Phasing Out Halons to Protect the Ozone Layer

### HALONS

Halons can be 10 times more damaging to the ozone layer than a similar amount of chlorofluorocarbons (CFCs). For example, the ozone-depleting potential of halons compared to a common chlorofluorocarbon (CFC-11) is:

- Halon-1211: 3 times CFC-11
- Halon-2402: 6 times CFC-11
- Halon-1301: 10 times CFC-11

Halons are used in fire-extinguishing equipment and fire and explosion suppression applications. They are released into the atmosphere during fire-fighting, fire-fighting training, testing or equipment servicing and by accidental discharges.

Halons were never produced in Canada, but they are widely used here. It is estimated that about 140,000 fire extinguishers and systems containing halons are in service in Ontario alone.

### OZONE-DEPLETING SUBSTANCES

Fluorocarbons are a family of long-lasting synthetic chemicals that contain carbon and fluorine and in many cases, chlorine. They include chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs). They were developed about 60 years ago as a substitute for ammonia in refrigerators. Related to CFCs, halons are a group of chemicals that contain bromine.

Once released from the products and processes in which they are used, these chemicals rise into the

upper atmosphere and damage the ozone layer which acts as a shield protecting the earth against ultraviolet radiation. Ultraviolet radiation can cause serious health and environmental effects such as skin cancer and vegetation damage.

International concern about the depletion of the ozone layer has led to an agreement, called the Montreal Protocol for Substances that Deplete the Ozone Layer, which was originally signed by 60 countries and came into force in July 1989. The Protocol has been amended twice, most recently in Copenhagen in 1992, to accelerate the phasing out of ozone-depleting substances (ODS), including halons.

Canada signed the Copenhagen Agreement which bans the production and import of CFCs in 1996 and the import of halons in 1994.

Ontario was the first province in Canada to pass regulations which supported the intent of the Montreal Protocol. These regulations included controls on CFCs in aerosols, and the phasing out of CFC foaming agents to make rigid or flexible foam. More recent regulations control CFCs and HCFCs used in refrigeration.

The halon regulation, together with previous measures, will control about 95 per cent of the sources of ozone-depleting fluorocarbons in Ontario.

### HALON REGULATION

Ontario's goal is to minimize the release of ODS including halons. Under the regulation, the release of halons, except to fight fires, is prohibited in Ontario. This will allow time to develop safe substitutes for halons.



The regulation does not require homeowners to dispose of or hand over their portable fire extinguishers. Homeowners should maintain them in accordance with manufacturers' instructions and contact Underwriters' Laboratories of Canada (ULC) for information on servicing or disposal.

The regulation will be phased in according to the following timetable:

*Effective immediately:*

- prohibits the addition of Halon-2402 to existing equipment;
- requires the use of certified halon companies to service halon equipment and to store or recycle halons;
- requires that certified companies meet ULC standards;
- requires that large extinguishers or systems (greater than three kilograms) must be certified empty before being disposed of;
- exempts small extinguishers (less than three kilograms) from disposal requirements.

*Starting 1995:*

- prohibits filling equipment that was manufactured after 1994 with halons;
- prohibits the sale of new halon fire-extinguishing systems;

*Starting 1996:*

- prohibits the sale of new portable halon extinguishers;
- prohibits the refill of existing portable extinguishers smaller than three kilograms with halons;

*Starting 1997:*

- prohibits the addition of most HCFCs and HBFCs (hydrobromofluorocarbons) to fire-extinguishing equipment (use of some HCFCs with very low ozone-depleting potentials will be permitted).

Controlled use of halons to fight fires is permitted. However, discharging halon equipment for the purpose of training fire-fighters is not allowed. Existing extinguishers and systems can continue to be used by industry and householders, but small fire extinguishers cannot be recharged after 1995. The Ontario Fire Marshal's Office was consulted throughout the development of the regulation.

Only companies certified by ULC will be allowed to service halon fire-extinguishing equipment, recondition or store halons. Standards have been developed to minimize the loss of halons to the environment.

## FOR MORE INFORMATION

If you require information on the servicing, dismantling or removal of halon equipment, or need information on the supply, storage or reconditioning of halons, contact ULC at 1-800-463-8244. ULC is a non-profit standards organization, under the Standards Council of Canada, that will give you the names of approved companies.

Copies of the regulation can be obtained at the Ministry of Environment and Energy's Public Information Centre, 135 St. Clair Ave. W., Toronto, Ont., M4V 1P5, tel: (416) 323-4321 or call toll free 1-800-565-4923.



June 28, 1994

O. Reg. 413/94

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Filed: June 24, 1994

Ontario Gazette: July 9, 1994

## REGULATION MADE UNDER THE ENVIRONMENTAL PROTECTION ACT

### HALON FIRE EXTINGUISHING EQUIPMENT

1. In this Regulation,

**"fire extinguishing equipment"** means a fire extinguishing system or a portable fire extinguisher;

**"fire extinguishing system"** means a fire extinguishing system that is not manually transportable, a fire suppression system or an explosion suppression system and includes related equipment other than a portable fire extinguisher;

**"portable fire extinguisher"** means a fire extinguisher that is manually transportable.

2. (1) Except in accordance with section 6, no person shall discharge or cause or permit the discharge into the natural environment of,
- (a) halon 1211, also known as bromochlorodifluoromethane;
  - (b) halon 1301, also known as bromotrifluoromethane; or
  - (c) halon 2402, also known as dibromotetrafluoroethane.
- (2) Despite subsection (1), fire extinguishing equipment that contains a substance mentioned in subsection (1) may be used to fight fires, except fires caused for firefighting training purposes.

3. No person shall store halon 1211 or halon 1301 except,
  - (a) in fire extinguishing equipment kept for use;
  - (b) in emergency tanks kept adjacent to the halon tanks of a fire extinguishing system installed for use;
  - (c) at the premises of a business certified by Underwriters' Laboratories of Canada in accordance with its publication ULC/ORD-C1058.18-1993, "The Servicing of Halon Extinguishing Systems" or CAN/ULC-S532-M90, "Standard for the Regulation of the Servicing of Portable Fire Extinguishers";
  - (d) at the premises of a person who has a written agreement for regular inspection of the halon storage with a business certified by Underwriters' Laboratories of Canada in accordance with its publication ULC/ORD-C1058.18-1993, "The Servicing of Halon Extinguishing Systems"; or
  - (e) in fire extinguishing equipment or a component of fire extinguishing equipment, if the equipment or component has never been used and is kept for sale.
4.
  - (1) No person shall add halon 1211 or halon 1301 to a portable fire extinguisher unless the extinguisher was manufactured before January 1, 1995.
  - (2) No person shall add halon 1211 or halon 1301 to a fire extinguishing system unless the system was manufactured and fully installed for the first time before January 1, 1995.
  - (3) No person shall add halon 2402 to fire extinguishing equipment.
  - (4) After December 31, 1996, no person shall add a hydrobromo-fluorocarbon to fire extinguishing equipment.
  - (5) After December 31, 1996, no person shall add a hydrochloro-fluorocarbon to fire extinguishing equipment unless the hydrochlorofluorocarbon is or is a component of a fire extinguishing medium that is listed by Underwriters' Laboratories of Canada as having an ozone depleting potential less than 0.05.

- (6) After December 31, 1995, no person shall add halon 1211 or halon 1301 to a portable fire extinguisher designed to contain halon in a quantity of three kilograms or less.
- 5.
- (1) No person shall sell, transfer, use or store a portable fire extinguisher containing halon 1211 or halon 1301 unless the extinguisher was sold for use for the first time before January 1, 1996.
  - (2) No person shall sell, transfer, use or store a fire extinguishing system containing halon 1211 or halon 1301 unless the system was manufactured and fully installed for the first time before January 1, 1995.
  - (3) No person shall sell or transfer a portable fire extinguisher containing halon 1211 or halon 1301 unless the portable fire extinguisher bears a clear and legible label that,
    - (a) states that the extinguisher contains an ozone depleting substance; and
    - (b) identifies the halons inside the portable fire extinguisher.
- 6.
- (1) No person shall inspect or service fire extinguishing equipment containing halon 1211 or halon 1301 in any manner that has the potential for causing the discharge of the halon into the natural environment unless,
    - (a) the person is employed in a business certified for the servicing of such equipment by Underwriters' Laboratories of Canada in accordance with its publication ULC/ORD-C1058.18-1993, "The Servicing of Halon Extinguishing Systems" or CAN/ULC-S532-M90, "Standard for the Regulation of the Servicing of Portable Fire Extinguishers";
    - (b) the person performs the servicing in accordance with Underwriters' Laboratories of Canada publication CAN/ULC-S532-M90, "Standard for the Regulation of the Servicing of Portable Fire Extinguishers" or ULC/ORD-C1058.18-1993, "The Servicing of Halon Extinguishing Systems"; and
    - (c) the person concludes the servicing by affixing the appropriate Underwriters' Laboratories of Canada label to confirm what has been done.

- (2) No person shall recover or recondition halon 1211 or halon 1301 from fire extinguishing equipment unless,
  - (a) the person is employed in a business certified for such operations by Underwriters' Laboratories of Canada in accordance with its publication ULC/ORD-C1058.18-1993, "The Servicing of Halon Extinguishing Systems" or CAN/ULC-S532-M90, "Standard for the Regulation of the Servicing of Portable Fire Extinguishers";
  - (b) the person performs the recovery or reconditioning by means of equipment that,
    - (i) conforms to the standards set out in Underwriters' Laboratories of Canada publication ULC/ORD-C1058.5-1993, "Halon Recovery and Reconditioning Equipment", and
    - (ii) bears an Underwriters' Laboratories of Canada label confirming that it meets the standards of Underwriters' Laboratories of Canada publication ULC/ORD-C1058.5-1993, "Halon Recovery and Reconditioning Equipment";
  - (c) in the case of a fire extinguishing system, the person performs the recovery or reconditioning in accordance with Underwriters' Laboratories of Canada publication ULC/ORD-C1058.18-1993, "The Servicing of Halon Extinguishing Systems" or ULC/ORD-C1058.5-1993, "Halon Recovery and Reconditioning Equipment"; and
  - (d) in the case of a portable fire extinguisher, the person performs the recovery or reconditioning in accordance with Underwriters' Laboratories of Canada publication CAN/ULC-S532-M90, "Standard for the Regulation of the Servicing of Portable Fire Extinguishers" or ULC/ORD-C1058.5-1993, "Halon Recovery and Reconditioning Equipment".
- 7. No person shall add halon 1211 or halon 1301 to a container, other than a container that is part of fire extinguishing equipment, unless the container bears a clear and legible label that,
  - (a) identifies the halon that the person is adding;
  - (b) states that the halon is an ozone depleting substance; and



- (c) states that the container cannot be dismantled, destroyed, recycled, incinerated or disposed of by depositing in a dump or landfilling site unless the container bears a label that indicates that the container no longer contains halon.

8. (1) No person shall dismantle, destroy, recycle, incinerate, or dispose of by depositing in a dump or landfilling site,

- (a) fire extinguishing equipment that has contained halon 1211 or halon 1301; or
- (b) a container that has a label that indicates that it has contained halon 1211 or halon 1301,

unless the equipment or container bears a label dated within the preceding six months that indicates that the equipment or container no longer contains halon 1211 or halon 1301.

- (2) This section does not apply to a portable fire extinguisher designed to contain halon 1211 or halon 1301 in a quantity of three kilograms or less.

9. (1) Except in accordance with subsections (2) and (3), no person shall affix to;

- (a) fire extinguishing equipment that has contained halon 1211 or halon 1301; or
- (b) a container that has a label that indicates that it has contained halon 1211 or halon 1301,

a label that indicates that the equipment or container no longer contains halon.

- (2) A person who is employed in a business certified by Underwriters' Laboratories of Canada in accordance with its publication ULC/ORD-C1058.18-1993, "The Servicing of Halon Extinguishing Systems" or CAN/ULC-S532-M90, "Standard for the Regulation of the Servicing of Portable Fire Extinguishers" and who determines that,

- (a) fire extinguishing equipment that has contained halon 1211 or halon 1301; or

- (b) a container that has a label that indicates that it has contained halon 1211 or halon 1301,

no longer contains halon may affix a label to the equipment or container that indicates that the equipment or container no longer contains halon 1211 or halon 1301.

- (3) A label affixed by a person in accordance with subsection (2) must include,

- (a) the name of the person;
- (b) the name of the business in which the person is employed;
- (c) a statement that the person has determined that the equipment or container no longer contains halon; and
- (d) the date of the determination.

- (4) The employer of a person who affixes a label in accordance with subsections (2) and (3) shall keep a record of the information on the label for a period of two years from the date that the label is affixed, together with a brief description of the equipment or container to which the label is affixed.







